



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,872	04/28/2005	Won-Hyun Jung	0630-2306PUS1	2204
2292	7590	09/15/2006	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			PRESTON, ERIK D	
			ART UNIT	PAPER NUMBER
			2834	

DATE MAILED: 09/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/532,872

Applicant(s)

JUNG ET AL.

Examiner

Erik D. Preston

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 7-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 April 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 4/28/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Claims 7-10 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Group II, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 6/28/2006.

Applicant's election with traverse of Group I in the reply filed on 6/28/2006 is acknowledged. The traversal is on the ground(s) that Groups I and II are related to one another as a product and a process specially adapted for the manufacture of said product. This is not found persuasive because the product of Group I can have a coil that is firstly molded by a molding material and secondly molded by a die without the use of a jig.

The requirement is still deemed proper and is therefore made FINAL.

Drawings

Figures 1-3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 2,3 & 6 are objected to because of the following informalities: In line 5 of claim 2 and line 2 of claim 3, "cooper" should be replaced with "copper". In line 2 of claim 6, "cpoer" should be replaced with "copper". Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 & 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Do et al. (WO 2002/087060 supplied by applicant) in view of Miyamoto (JP 09-129470 supplied by applicant). Do teaches a winding coil assembly of a reciprocating motor comprising: an outer stator (Fig. 1, #10); and inner stator (Fig. 1, #11) arranged at an inner circumference surface of the outer stator with a certain air gap; a magnet (Fig. 1, #42) linearly and movably arranged between the outer stator and the inner stator; and a winding coil mounted on the outer stator, wherein the winding coil is formed in a ring shape by being wound with a plurality of turns, but it does not teach the coil being integrally molded by a molding material of coil. However, Miyamoto teaches a coil being integrally molded by a molding material (as seen in Fig. 5). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the coil of Do in view of the Molding material as taught by Miyamoto because it provides a means for replacing the bobbin of a ring shaped coil thereby aiding in the miniaturization of the coil

Art Unit: 2834

(Miyamoto, Paragraph 17). It is noted that the limitation of the coil being first molded by a molding material and secondly molded by a die is a method limitation given little patentable weight in an apparatus claim.

Claims 2-4 & 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Do et al. (WO 2002/087060 supplied by applicant) in view of Miyamoto (JP 09-129470 supplied by applicant) further in view of Gardos et al. (US 4376710). Do in view of Miyamoto teaches the winding coil assembly of claims 1 & 5, And Miyamoto teaches that the coil is manufactured by sequentially coating a polyester imide layer (Fig. 5, #13b) and a polyamide layer (Fig. 5, #13c) on a surface of the wire, wherein the a polyester imide layer is coated on a surface of copper wire, a polyamide imide layer is coated on the surface of the polyester imide layer, and an epoxy layer (Fig. 5, #13d) on the surface of the polyamide layer, but it does not teach that the epoxy layer is a self-lubricating polymide. However, Gardos teaches a self-lubricating polymide (Col. 1, Lines 35-44), and epoxy polymides were well known at the time of the invention. However, it would have been obvious to form the epoxy layer of Miyamoto from a self-lubricating polymide since it has been held that one of ordinary skill in the art at the time the invention would choose a suitable and desirable material, because it would be within the general skill of a worker in the art to select a material on the basis of its suitability for the intended use as a matter of obvious design choice (In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960)).

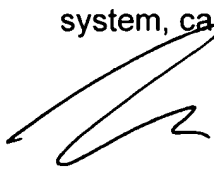
Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 3493413, US 3676814, US 3842192, US 4127695, US 5337941 & US 6882075

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erik D. Preston whose telephone number is (571)272-8393. The examiner can normally be reached on Monday through Friday 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571)272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



09/08/2006



DARREN SCHUBERG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800